# Sustainability Roadmap 2018-2019:

# **Zero Emission Vehicles**

Progress Report and Plan for Meeting the Governor's Sustainability Goals for California State Agencies

Employment Development Department Edmund G. Brown Jr., Governor



# Employment Development Department Sustainability Roadmap 2018-2019: Zero Emission Vehicles

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## TABLE OF CONTENTS

	Page
Table of Contents	i
List of Tables	ii
Acronyms	üi
EXECUTIVE SUMMARY	1
Overview	1
Department Functions	1
Challenges	2
Accomplishments and Efforts Underway	2
Conclusion	3
SUSTAINABILITY GOALS	4
Executive Order B-18-12	4
Executive Order B-16-12	4
Executive Order B-30-15	4
2016 Zero Emission Vehicle Action Plan	5
AB 32 Scoping Plan	5
Public Resources Code §25722.8	5
State Administrative Manual & Management Memos	5
FLEET VEHICLES	6
Department Mission and Fleet	6
Incorporating ZEVs into the State Fleet	8
Telematics Plan	9
Public Safety Exemption	10
ZEV INFRASTRUCTURE	11
Introduction to the Employment Development Department Parking Facilities	11
Outside Funding Sources for EV Infrastructure	12
Hydrogen Fueling Infrastructure	13
Comprehensive Facility Site and Infrastructure Assessments	13
EVSE Construction Plan	13
EVSE Operation	14
SUSTAINABILITY MILESTONES & TIMELINE	15
DEPARTMENT STAKEHOLDERS	16

# LIST OF TABLES

	Page
Table 1: Total Purchased Fuel 2016	8
Table 2: Vehicles in Department Fleet Currently Eligible for Replacement	9
Table 3: ZEV Additions to the Department Fleet	9
Table 4: High Priority EVSE Projects	12
Table 5: Results of Site Assessments	13

## **Acronyms**

BEV Battery Electric Vehicle

CO₂ Carbon Dioxide

**DGS** Department of General Services

**DI** Disability Insurance

**EDD** Employment Development Department

**EO** Executive Order

**EVSE** Electric Vehicle Supply Equipment (charging equipment)

FCV Fuel Cell Vehicle

GGE Gasoline Gallon Equivalent

**GHGe** Greenhouse Gas Emissions

**GovOps** Government Operations Agency

Level 1 (Charging Station)

Level 2 (Charging Station)

Level 3 (Charging Station)

Lease Management and Sustainability Unit

MM Management Memo

MPG Miles Per Gallon

PHEV Plug-In Hybrid Electric Vehicle

**SAM** State Administrative Manual

SUV Sport-Utility Vehicle

UI Unemployment Insurance

VMU Vehicle Management Unit (EDD)

WIOA Workforce Innovation Opportunity Act

WS Workforce Services

**ZEV** Zero Emission Vehicle

#### **EXECUTIVE SUMMARY**

#### **Overview**

With guidance from the Government Operations (GovOps) Agency and the Department of General Services (DGS), Office of Sustainability, the Employment Development Department (EDD) has prepared the following Zero Emission Vehicle (ZEV) Roadmap to discuss progress todate, outline goals, and establish objectives for ZEVs and ZEV infrastructure.

As such, the EDD recognizes the importance of Governor Edmund G. Brown, Jr.'s Executive Order (EO) B-16-12, including the need to incorporate ZEVs into fleet purchases, develop charging infrastructure to support ZEVs, and establish policies and practices to encourage the adoption of ZEVs by government partners, private businesses, and the general public.

The information contained herein will serve as a benchmark to develop plans for futures years to ensure that EDD continues to reduce greenhouse gas emissions, expands its green vehicle fleet, and provides the infrastructure necessary to support an alternative fuel fleet.

#### **Department Functions**

The EDD is one of the largest state departments, which administers Workforce Services (WS), Unemployment Insurance (UI), Disability Insurance (DI), employment tax collection programs, and related administration, technology, policy, accountability, and compliance activities to citizens and employers throughout California. The EDD continuously strives to align system operations, practices, and resources with programmatic priorities and budgetary parameters.

The Department's WS program is subject to the federal Workforce Innovation and Opportunity Act (WIOA), which strengthens the ability of the WS program to align investments in workforce, education, and economic development with regional in-demand jobs. It also focuses on the importance of providing customers with access to high-quality employment centers that connect them with a full range of services available in their communities. Every local area, as outlined in WIOA, must have at least one comprehensive America's Job Center of California (AJCC), which provides customers access to all appropriate job services in a single location.

#### **Challenges**

The EDD maintains a presence throughout California in locations as far north as Eureka and as far south as El Centro. As such, EDD's vehicles must be able to drive long distances, which can present unique challenges when incorporating ZEVs into the fleet. The time required to charge a ZEV could prevent an employee from making a return trip, despite having access to a charging station at their destination. Range limitations of current ZEVs could lead to wasted staff time if an employee must wait for a vehicle to finish charging before continuing their trip. Despite these challenges, EDD is incorporating additional BEVs into its Fleet Acquisition Plan., which will eventually be supported by a network of charging stations at EDD-owned facilities. Future deployments will be used to develop best practices and guidance for the most practical use of these vehicles.

As of December 31, 2016, the EDD's real estate portfolio consists of 26 EDD-owned properties, including 2 parking lots, 16 DGS-owned properties, and 129 properties leased or subleased from private ownership. This large number of leased or subleased properties may present additional challenges when developing charging infrastructure because these locations will require the support of building ownership to deploy charging stations. Additionally, WIOA guidelines require that EDD subleases from partner agencies, which further limits EDD's ability to negotiate ZEV infrastructure installations directly with lessors.

In addition, EDD must weigh the costs of ZEVs and charging infrastructure when evaluating available overhead budget. Many of EDD's owned facilities have substantial deferred maintenance requirements, which must be prioritized before significant budget can be invested in ZEV charging infrastructure. When economically possible, charging infrastructure may be installed as a part of other building improvement projects.

#### **Accomplishments and Efforts Underway**

The Department has worked diligently to conserve energy and water, reduce greenhouse gas (GHG) emissions, and comply with Governor Brown's EOs on sustainability. Fleet GHG emissions, in particular, have been reduced by 22% since 2010. This reduction can be partially attributed to the addition of hybrid electric vehicles (HEVs), battery electric vehicles (BEVs), and plug-in hybrid electric vehicles (PHEVs) in EDD's fleet.

The EDD is currently working with EVgo to utilize available funding to provide support for electric vehicles (EV) through installation of EV charging station infrastructure at 12 EDD-owned properties at no cost to EDD. The contractor has completed site assessments of eligible EDD sites, and will be moving forward with installation of electrical upgrades and construction necessary to support up to 10 charging stations at each of the 12 selected facilities. This project will prepare EDD to support a growing ZEV fleet. Infrastructure construction will be completed at 2 of the 12 facilities by the end of 2017. All sites are expected to be complete by the end of 2018.

#### **Conclusion**

The EDD will continue to support the Governor's directives on the use of ZEVs in California's vehicle fleets in an effort to reduce GHG emissions and dependency on fossil fuels, increase efficiency in government operations, and have a positive net effect on global climate change.

As ZEV range improves and charging infrastructure becomes more widespread, the EDD will continue to pursue opportunities to replace petroleum fueled vehicles with ZEVs, as operationally and economically feasible.

In summary, the EDD will continue to work diligently to remain a leader in California government's green movement and help to provide a sustainable future for Californians for generations to come.

Patrick W. Henning

Director

#### **SUSTAINABILITY GOALS**

The Governor has directed California State Agencies to demonstrate sustainable operations and to lead the way by implementing sustainability policies set by the state. Sustainability includes the following general initiatives:

- Greenhouse Gas Emissions Reductions
- Building Energy Efficiency and Conservation
- Indoor Environmental Quality (IEQ)
- Water Efficiency and Conservation
- Monitoring Based Building Commissioning (MBCx)
- Environmentally Preferable Purchasing (EPP)
- Financing for Sustainability
- Zero Emission Vehicle (ZEV) Fleet Purchases
- Electric Vehicle Charging Infrastructure
- Monitoring and Executive Oversight

The Governor has issued numerous executive orders directing sustainable state operations. The orders relevant to zero emission vehicles are:

#### **Executive Order B-18-12**

EO B-18-12 and the companion *Green Building Action Plan require state agencies to reduce the* environmental impacts of state operations by reducing greenhouse gas emissions, managing energy and water use, improving indoor air quality, generating onsite renewable energy when feasible, implementing environmentally preferable purchasing, and developing the infrastructure for electric vehicle charging stations at state facilities. The Green Building Action Plan also established two oversight groups, the staff level Sustainability Working Group and the executive level Sustainability Task Force, to ensure these measures are met.

#### **Executive Order B-16-12**

EO B-16-12 directs state agencies to integrate zero emission vehicles (ZEVs) into the state vehicle fleet. It also directs state agencies to develop the infrastructure to support increased public and private sector use of ZEVs. Specifically, it directs state agencies replacing fleet vehicles to replace at least ten percent with ZEVs, and by 2020 to purchase at least 25% replacement fleet as ZEVs.

#### **Executive Order B-30-15**

EO B-30-15 declared climate change to be a threat to the well-being, public health, natural resources, economy, and environment of California. It established a new interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030, and reaffirms California's intent to reduce greenhouse gas emissions by 80 percent below 1990 levels by 2050.

To support these goals, this order requires numerous state agencies to develop plans and programs to reduce emissions.

#### 2016 Zero Emission Vehicle Action Plan

The plan establishes a goal to provide electric vehicle charging to 5% of state owned parking spaces by 2022. It also advances the ZEV procurement target to 50% of light duty vehicles by 2025.

#### **AB 32 Scoping Plan**

The scoping plan assumes widespread electrification of the transportation sector as a critical component of every scenario that leads to the mandated 40% reduction in GHG by 2030 and 80% reduction by 2050.

#### **Public Resources Code §25722.8**

Statute requires reducing consumption of petroleum products by the state fleet compared to a 2003 baseline. Mandates a 10 percent reduction or displacement by Jan. 1, 2012 and a 20 percent reduction or displacement by Jan. 1, 2020.

#### State Administrative Manual & Management Memos

The following sections of the State Administrative Manual (SAM), and associated Management Memos (MM), currently impose sustainability requirements on the department under the Governor's executive authority:

- MM 15-03: Minimum Fuel Economy Standards Policy
- MM 15-07: Diesel, Biodiesel, and Renewable Hydrocarbon Diesel Bulk Fuel Purchases
- MM 16-07: Zero-Emission Vehicle Purchasing and EVSE Infrastructure Requirements

#### **FLEET VEHICLES**

#### **Department Mission and Fleet**

This ZEV Report and Plan demonstrates to the Governor and the public the progress the Department has made toward meeting the Governor's sustainability goals related to Zero Emission Vehicles. This report identifies successful accomplishments, ongoing efforts, outstanding challenges and future efforts.

The EDD maintains a fleet of over 200 vehicles which operate throughout California on paved roads and highways, through mountainous and desert terrain, in remote or secluded locations, both in good and inclement weather. Round trips can range from 25 miles to 350 miles or more in a single day. Some vehicles must be four-wheel-drive capable to reach areas where snow and ice may be present.

The EDD's light duty vehicles are used for a wide range of activities including travel between field offices to conduct business related to:

- Unemployment or Disability Insurance benefits.
- Payroll tax collections.
- Employment resources, training opportunities and workshop services to job seekers, employers and partners.
- Fraud investigation activities.
- Facility issues and project management.
- Information Technology support and equipment.
- Emergency or natural disaster aid.

In addition to the above, EDD's heavy duty vehicles are used by warehouse workers to transport modular systems furniture, supplies, and equipment throughout the state to support EDD's business needs. These vehicles must be able to drive long distances due to the distributed nature of EDD field offices.

As of December 31, 2016, the EDD fleet consisted of approximately 230 vehicles, including sedans, vans, pickup trucks, sport-utility vehicles (SUVs), heavy duty vehicles, and various classes of ZEVs. The EDD has made significant progress in meeting the mandates of EO B-16-12 and MM 16-07, by steadily adding ZEVs into its fleet and installing the infrastructure needed to support current and future ZEVs.

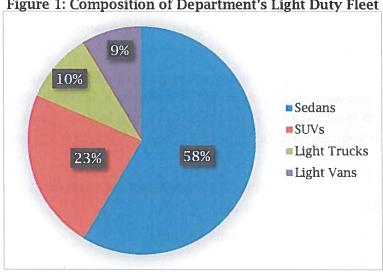


Figure 1: Composition of Department's Light Duty Fleet

The EDD vehicle fleet has made a transition to ZEVs and more fuel efficient vehicles since 2012. As sedans have reached the end of their useful life, EDD has replaced them with HEVs and ZEVs, as shown below:

- 2012 236 sedans (including 4 HEVs), 23 light trucks, 32 SUVs, and 10 vans.
- 2013 179 sedans (including 2 HEVs), 25 light trucks, 31 SUVs, and 7 vans.
- 2014 175 sedans (including 2 HEVs and 1 BEV), 23 light trucks, 31 SUVs, and 6 vans.
- 2015 189 sedans (including 19 HEVs, 3 BEVs, 2 PHEVs), 25 light trucks, 45 SUVs, and 7 vans.
- 2016 178 sedans (including 20 HEVs, 3 BEVs, 3 PHEVs), 24 light trucks, 37 SUVs, and 8 light vans.
- 2017 170 sedans (including 23 HEVs, 5 BEVs, 19 PHEVs), 18 light trucks, 39 SUVs, and 8 light vans

The addition of ZEVs has helped to reduce the volume of fuel consumed by 16%:

- 2012 148,050 Gasoline Gallon Equivalents (GGEs)
- 2013 133,296 GGEs
- 2014 125,212 GGEs
- 2015 132,891 GGEs
- 2016 124,589 GGEs

Between 2012 and 2016, EDD's overall MPG increased by approximately 5%:

• 2012 - 20.76 MPG

- 2013 20.81 MPG
- 2014 20.85 MPG
- 2015 21.87 MPG
- 2016 21.87 MPG

The EDD also saw a corresponding reduction in CO<sub>2</sub> emissions resulting from vehicle fuel consumption during the same time period:

- 2012 3,295,746 pounds of CO<sub>2</sub>
- 2013 3,260,283 pounds of CO<sub>2</sub>
- 2014 3,198,295 pounds of CO<sub>2</sub>
- 2015 3,048,744 pounds of CO<sub>2</sub>
- 2016 3,102,405 pounds of CO<sub>2</sub>

Based upon projected fleet replacement plans, EDD anticipates a continued improvement in overall MPG in coming years, largely due to the increased number of HEVs and ZEVs and reduced number of conventional internal combustion engines.

Table 1: Total Purchased Fuel 2016

<b>Purchased Utility</b>	Quantity (Gallons)	Cost (\$)
Gasoline	114,444	\$314,490
Diesel	10,145	\$26,930
Renewable Diesel		
Total GGE	124,589	\$341,420

#### **Incorporating ZEVs into the State Fleet**

A widespread shift to Zero Emission Vehicles is essential for California to meet its Green House Gas (GHG) emission goals. State departments are now required to incorporate larger numbers of ZEVs in their vehicle fleets. Starting in FY 17/18 the percentage of new light duty vehicles that must be Zero Emission Vehicles increases by 5% each year, reaching 25% in FY 19/20 and 50% in FY 24/25.

Vehicles that exceed acceptable mileage, age, or operational condition thresholds are eligible for replacement. With the growing availability of ZEVs on statewide commodity contracts in various vehicle classes, ZEVs have the potential to replace a significant number of vehicles in the EDD fleet in the coming years.

BEVs may be assigned to offices that travel short distances from their primary storage location to field offices, partner locations, or off-site meetings. As EDD's charging infrastructure is expanded, BEVs will be especially well suited to metropolitan areas where multiple offices are located within close proximity. As manufacturers improve BEV range, these vehicles can be deployed to more far-reaching locations with less concern for available range to complete the trip.

PHEVs are more versatile and more appropriately meet EDD's transportation needs due to the greater range available through a hybrid powertrain. EDD staff frequently make trips that

exceed three hours one-way, which is not feasible with current BEVs available to EDD. However, PHEVs allow employees to make short trips exclusively using stored electricity, while also allowing for longer trips by operating as a traditional gasoline/electric hybrid. PHEVs can be refueled using established gas stations where electric vehicle charging stations (EVCS) are not available. PHEVs represent the majority of EDD's current ZEV purchases.

At this time, there are no fuel cell vehicles (FCV) in EDD's fleet. Although the long range of FCVs would suit EDD's business needs better than BEVs, the availability of hydrogen fueling stations outside of select cities is too limited to be a practical option. If hydrogen fueling stations become more widespread in coming years, EDD may incorporate FCVs into the vehicle fleet.

The EDD has 9 fleet vehicles that meet the age and mileage thresholds to be eligible for replacement. ZEVs are available through statewide commodity contracts in the sub-compact, compact, mid-size sedan, and mini-van vehicle classes and will be considered when budget is available to replace these vehicles.

The EDD has identified an additional 28 full size vehicles that will be replaced with ZEVs once age, mileage, or operational thresholds are reached.

Table 2: Vehicles in Department Fleet Currently Eligible for Replacement

	Sub-Compact Sedan	Compact Sedan	Midsize Sedan	Mini Van	Total
# of vehicles eligible for	0	7	0	2	9
replacement	5.50	N =			

The table below shows the estimated number of ZEVs that will be added to the department fleet in coming years.

Table 3: ZEV Additions to the Department Fleet

Two to the Department rect								
	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
Battery Electric Vehicle	2	0	2	0	1	1	1	1
Plug-in Hybrid Vehicle	2	1	16	10	5	3	2	5
Fuel Cell Vehicle	0	0	0	0	0	0	0	0
Percent of total purchases	11%	4%	45%	14%	20%	29%	43%	35%
Required ZEV Percentage	10%	10%	10%	15%	20%	25%	30%	35%
Total number of ZEVs in Fleet	4	22	32	43	49	53	56	62

#### **Telematics Plan**

Telematics is a method for monitoring vehicle use. Using GPS and on-board diagnostics, telematics provides valuable information that often results in fuel savings and improved vehicle utilization. Telematics is especially important for verifying that Plug-in Hybrid Vehicles are maximizing the use of electric fuel rather than gasoline. The rule requiring 50% of ZEVs purchased to be BEVs is not in place for fleets making use of telematics for all ZEVs.

The EDD has considered the advantages of using a telematics system to manage its fleet. A robust telematics program could help EDD to accurately capture data to assist in evaluating driving habits, vehicle efficiency and use, required maintenance, and allow the department to optimize the use of its ZEV fleet. However, due to the cost of purchasing and maintaining a telematics program, including staff time and training, the program is not cost-effective for the Department's relatively small fleet at this time.

#### **Public Safety Exemption**

The EDD employs staff that are sworn peace officers. However, their duties do not require them to perform in an emergency or public safety capacity. They conduct confidential fraud investigations across the state, but do not meet the criteria of MM 16-07 for special performance requirements. When these vehicles are eligible for replacement, EDD will consider ZEVs.

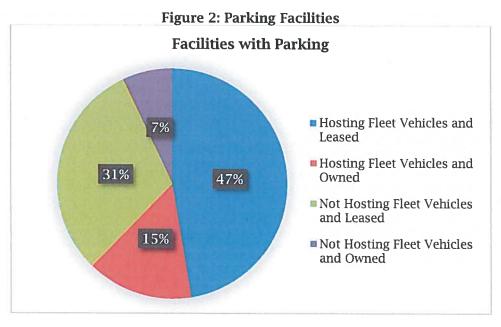
#### ZEV INFRASTRUCTURE

# **Introduction to the Employment Development Department Parking Facilities**

The EDD operates in more than 160 locations statewide. Of these locations, approximately 71 house fleet vehicles on-site. Many locations are open to the public to provide job services, assistance with DI, or consultation on employment tax issues. Other locations are non-public, such as UI and administrative support offices. Whether an office is open to the public or not, EDD must always maintain the security of sensitive or confidential information and ensure the safety of employees and property.

Vehicle parking at EDD's public locations typically consists of a mixture of state-owned fleet cars and employee and public parking on a shared surface lot. Some locations have secured parking for fleet vehicles in fenced cages, garages, or carports. Other locations have markings or signage to differentiate parking space use between employee, public, and fleet parking. Locations with ample parking are typically unreserved with open use.

Some EDD locations are considered confidential non-public offices due to the nature of their operations. Parking at these offices is limited to employee and fleet parking only. These sites may have a non-secured parking lot with open parking stalls secured with fencing or controlled by an electronic access gate to deter theft and vandalism.



Given the nature of the EDD's fleet operations, the needs of employees, and considering the average length of stay for visitors, the EDD plans to pursue level 2 (L2) chargers for the majority of its current and planned charging network. L2 charging stations offer faster charge time and will adequately serve fleet, employee, and visitor ZEV needs. Where leased facilities

exhibit a demand for L2 charging stations, the EDD will work with lessors and property managers to pursue installation of EVSE at the location. If amending the lease agreement is necessary to accommodate future L2 EVSE at leased properties, EDD would initiate discussions between the lessors and DGS.

The charging speed of level 1 (L1) charging stations is not sufficient for EDD's business needs, and the purchase of level 3 (L3) charging stations is not feasible using EDD's existing overhead budget. EDD may consider purchasing L3 charging stations if the cost of equipment and installation becomes more economical in future years.

EVSE that rely only on solar energy to charge ZEVs, such as the "EV ARC" have also been considered. However, these units have a high purchase price compared to traditional EVSE. They also require more frequent and involved maintenance and may be more vulnerable to vandalism. At this time, solar powered EVSE are not practical for EDD's charging infrastructure.

**Table 4: High Priority EVSE Projects** 

Facility Name	Total Parking Spaces	Existing L1 Chargers	Existing L2 Chargers	New L1 Chargers Needed	New L2 Chargers Needed
Chico	43	0	0	0	(TBD)
Fresno (0219)	100	0	0	0	(TBD)
Inglewood (0316)	136	0	0	0	(TBD)
Merced	121	0	0	0	(TBD)
Modesto (0508)	124	0	0	0	(TBD)
Oakland (0519)	116	0	0	0	(TBD)
San Bernardino (0720)	66	0	0	0	(TBD)
San Jose	132	0	2	0	(TBD)
Santa Barbara	88	0	0	0	(TBD)
Santa Rosa	56	0	0	0	(TBD)
Torrance	65	0	. 0	0	(TBD)
Vallejo	87	0	0	0	(TBD)
Total	1,134	0	0	0	(TBD)

Active projects at each of the locations listed in Table 4 will provide infrastructure for 10 charging stations. Initially, fleet ZEVs will drive the purchase and deployment of L2 charging stations at these locations. Beyond fleet needs, the number of L2 charging stations installed at these sites will be determined based on employee and public interest and available budget.

#### **Outside Funding Sources for EV Infrastructure**

The EDD began the first installations of EVSE infrastructure in November 2015 to meet Governor Brown's requirements and support fleet operational needs. These installations were completed at the EDD-owned sites located in Sacramento, San Francisco, and San Jose, and were fully funded by EDD.

EDD is currently engaged with a private vendor, EVgo, to install and fund infrastructure at 12 additional EDD-owned sites. EVgo is providing this infrastructure at no cost to the state. EDD will purchase and install L2 EVSE at these locations using existing budget as needed to meet fleet, employee, and public demand.

#### Hydrogen Fueling Infrastructure

One hydrogen fueling station is currently available in West Sacramento, and multiple hydrogen stations are available in the Bay Area and Southern California. These fueling stations could potentially serve EDD fleet vehicles. However, it would be an inconvenience to EDD staff who would need to make special trips specifically to refuel their fleet vehicles at these locations. Because EDD does not plan to deploy a large number of FCVs or transition to an all hydrogen fleet, it would not be feasible to consider installation of a dedicated hydrogen fueling station.

#### Comprehensive Facility Site and Infrastructure Assessments

Site Assessments are performed to establish the cost and feasibility of installing needed EV infrastructure. The table below lists the facilities that have been evaluated with Site Assessments.

**Table 5: Results of Site Assessments** 

Facility Name	L1 Chargers with Current Electrical System	L2 Chargers with Current Electrical System	Total cost for Project using Current Electrical System	L1 Chargers with Electrical System Upgrades	L2 Chargers with Electrical System Upgrades
Chico	N/A	N/A	\$0	N/A	10
Fresno	N/A	N/A	\$0	N/A	10
Inglewood	N/A	N/A	\$0	N/A	10
Merced	N/A	N/A	\$0	N/A	10
Modesto	N/A	N/A	\$0	N/A	10
Oakland	N/A	N/A	- \$0	N/A	10
San Bernardino	N/A	N/A	\$0	N/A	10
San Jose	N/A	N/A	\$0	N/A	10
Santa Barbara	N/A	N/A	\$0	N/A	10
Santa Rosa	N/A	N/A	\$0	N/A	10
Torrance	N/A	N/A	\$0	N/A	10
Vallejo	N/A	N/A	\$0	N/A	10
Total	0	0	\$0	0	120

The sites listed in Table 5 were evaluated by EVgo as a part of an ongoing infrastructure installation project. Although it has been determined that these sites will accommodate 10 charging stations after electrical system upgrades that will be completed as part of this project, the assessment did not include an in-depth evaluation of capacity using only existing electrical service. Therefore, the number of charging stations that could be installed with the current electrical system is unknown. Similarly, L1 chargers are not applicable and were not considered for these infrastructure projects.

#### **EVSE Construction Plan**

The EDD is currently working with EVgo to install EVSE infrastructure at 12 EDD-owned buildings throughout the state. Construction at the Torrance and Santa Barbara buildings will be completed by the end of 2017. Construction at the remaining 10 sites will be completed over the course of 2018.

EVgo will provide project oversight and subcontracted construction services that include all supplies, materials, tools, equipment, labor, personnel, and supervision. EVgo will also be responsible for all taxes, insurance, bonds, license and permit fees, and all other direct and indirect costs necessary to provide installation of electrical infrastructure needed for up to 10 EV charging stations at each of the designated locations. There will be no cost to EDD except for the purchase of the charging stations.

The EDD will provide project management and oversight as necessary and ensure that the work is being done in accordance with standard technical, operating, and safety features for EVSE infrastructure. The project will result in "make-ready" EVSE pedestals including, but not limited to, electrical panels, transformers, primary and branch conduit and wire systems, pedestal footings, and pedestals.

#### **EVSE Operation**

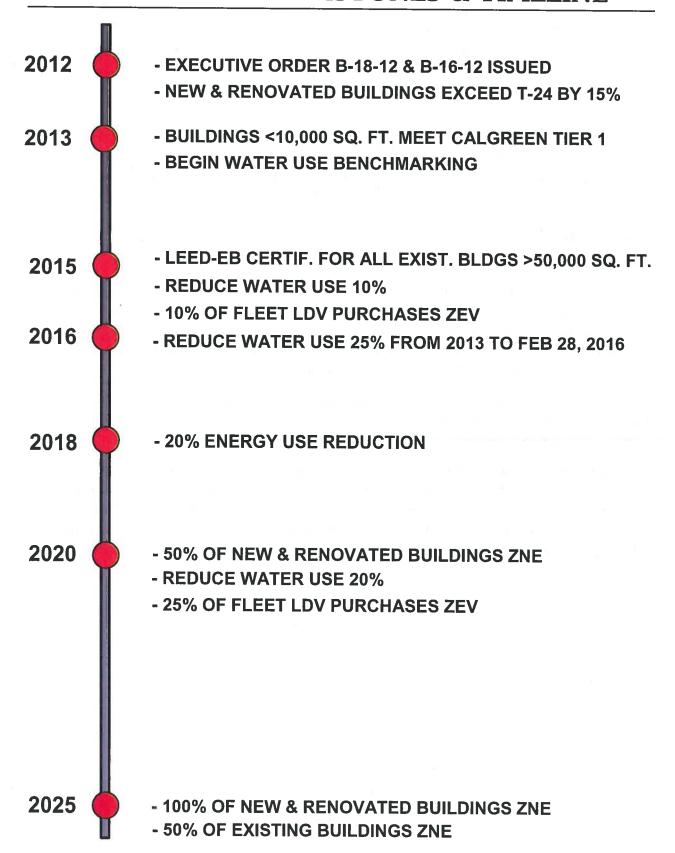
The EDD is presently operating six EV charging stations at three EDD-owned sites.

Each site has assigned a staff person with general oversight of the charging stations. Facility representatives report the monthly usage to EDD's Lease Management and Sustainability Unit (LMSU). These EVSE are all within secured fleet parking compounds and used only by EDD fleet vehicles. The EDD does not capture or track daily electricity use, employee names, or the vehicle license plates that utilize the charging stations.

As new infrastructure and EVSE are installed, EDD will establish policies and procedures for use by employees and the public. EDD is currently considering a number of variables related to this service, including cost recovery, oversight, and usage tracking.

The LMSU uses the reported meter data to calculate the monthly usage and enters this figure in Energy Star Portfolio Manager. EVSE use is subtracted from the facility's monthly electricity consumption figures. Since inception, the charging stations have remained in working order and have only required minor maintenance which is performed under the product warranty. No other repair or any major issues have been reported with operation and use of these EVSE.

# SUSTAINABILITY MILESTONES & TIMELINE



# **DEPARTMENT STAKEHOLDERS**

Incorporating ZEVs Into the Department Fleet		
Office of Facilities Planning and Management	Lease Management and Sustainability Unit	
Office of Procurement Contracting and Administration	Vehicle Management Unit	

Telematics		
Office of Procurement Contracting and Administration	Vehicle Management Unit	
Office of Facilities Planning and Management	Lease Management and Sustainability Unit	

Public Safety Exemption		
Office of Procurement Contracting and Administration	Vehicle Management Unit	
Office of Facilities Planning and Management	Lease Management and Sustainability Unit	
Policy Accountability and Compliance Branch	Investigations Division	

Outside Funding Sources for ZEV Infrastructure			
Office of Facilities Planning and Lease Management and Sustainability Unit			
Management			

Hydrogen Fueling Infrastructure		
Office of Facilities Planning and Management	Lease Management and Sustainability Unit	
Office of Procurement Contracting and Administration	Vehicle Management Unit	

Comprehensive Facility Site and Infrastructure Assessments		
Office of Facilities Planning and Management	Lease Management and Sustainability Unit	
Office of Facilities Planning and Management	Northern Region Facilities Management Group Southern Region Facilities Management Group Central Region Facilities Management Group	

EVSE Construction Plan		
Office of Facilities Planning and Management		Lease Management and Sustainability Unit
Office of Facilities Planning and Management	5, 2 14	Northern Region Facilities Management Group Southern Region Facilities Management Group Central Region Facilities Management Group

EVSE Operation		
Office of Procurement Contracting and Administration	Vehicle Management Unit	
Office of Facilities Planning and Management	Lease Management and Sustainability Unit	
Office of Facilities Planning and Management	Northern Region Facilities Management Group  Southern Region Facilities Management Group	
	Central Region Facilities Management Group	